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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/820,133

03/28/2001

Xin Li

SLA.0389

2166

23855

7590

05/06/2004

ROBERT D. VARITZ, P.C.  
2007 S.E. GRANT STREET  
PORTLAND, OR 97214

EXAMINER

ALAVI, AMIR

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 05/06/2004

95

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/820,133

Applicant(s)

LI, XIN

Examiner

Amir Alavi

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9 is/are allowed.
- 6) ☒ Claim(s) 1 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 11-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2 and 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 102**

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- Claims 1 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Lavalley (US 6,215,904 B1).

Regarding claim 1, Lavallee discloses: preparing an encoded representation of a document (Please note, figure 1, elements 140 and 170, these encoders provide encoded representation) by scanning the document to provide a scanner output (Please note, figure 1, element 110); classifying the scanner output as belonging to a class of document taken from the document classes consisting of smooth, text, graphics and image (Please note, figure 1, elements 120 and 150, element 150 being indicative of text and graphics, while element 120 disclosing continuous tone, in this regard Examiner considers this continuous tone to correspond to Applicant's both image and smooth, since a continuous tone in the art is an image and also wherein on column 5, lines 57-60, " detector 210 generates an appropriate control signal and outputs the group of pixels to low pass filter 220, which smooth the half tone image into a continuous tone image", herein a continuous tone being referred as smooth); and adaptively compressing the scanner output as a function of the class of the document (Please note, figure 1, elements 140 and 170; figure 3, element 340, in correlation to column 6, lines 9-12. As indicated the apparatus stores in memory the selected image data along with a tag indicating the method in which the selected image data was compressed, i.e., the encoding scheme. This encoding scheme being indicative of adaptive compression).

Regarding claim 10, Lavallee discloses: a scanner for scanning a document and generating a scanner output (Please note, figure 1, element 110); a block-based classifier for classifying the scanner output as belonging to a class of

documents taken from the document classes consisting of smooth, text, graphics and image (Please note, figure 1, elements 120 and 150, element 150 being indicative of text and graphics, while element 120 disclosing continuous tone, in this regard Examiner considers this continuous tone to correspond to Applicant's both image and smooth, since a continuous tone in the art is an image and also wherein on column 5, lines 57-60, " detector 210 generates an appropriate control signal and outputs the group of pixels to low pass filter 220, which smooth the half tone image into a continuous tone image", herein a continuous tone being referred as smooth); an adaptive compressor for compressing the scanner output according to a compression mode as a function of the class of document (Please note, figure 1, elements 140 and 170; figure 3, element 340, in correlation to column 6, lines 9-12. As indicated the apparatus stores in memory the selected image data along with a tag indicating the method in which the selected image data was compressed, i.e., the encoding scheme. This encoding scheme being indicative of adaptive compression); a storage mechanism for storing compressed scanner output and compression mode information (Please note, figure 3, element 340); and a de-compressor for decompressing compressed scanner output in accordance with the compression mode information (Please note, column 6, lines 15-16. As indicated a decoder for decompressing image data by applying a decoding scheme in accordance with a tag indicating the method in which the selected image data was de-compressed).

### Allowable Subject Matter

- Claims 7-9 are allowed.
- Claims 2-6 and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- The following is a statement of reasons for the indication of allowable subject matter: None of the prior art disclose or fairly suggest wherein classifying a document as text when the absolute value of  $c1 - c2 > 128$  and  $p >$  the contrast threshold value for text, wherein two dominant values,  $c1$ ,  $c2$ , are found and the cumulative probability,  $p$  is the summation over  $[c1 - A, c1 + A]$  and  $[c2 - A, c2 + A]$ .

### **Other prior art cited**

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wu et al. (US 5,903,676) is pertinent as teaching context based, adaptive, lossless image codec.

Chen (US 5,241,395) is pertinent as teaching adaptive transform coding using variable block size.

Ng et al. (US 6,163,625) is pertinent as teaching hybrid image compressor.

Konstantinides et al. (US 6,314,208 B1) is pertinent as teaching system for variable quantization in JPEG for compound documents.

Schwartz (US 5,432,870) is pertinent as teaching method and apparatus for compressing and decompressing images of documents.

Nguyen et al. (US 6,115,496) is pertinent as teaching method and apparatus for accelerating image data compression.

Chen et al. (US 5,805,735) is pertinent as teaching method and apparatus for compression of digitized image data using variable color fidelity.

Holladay et al. (US 6,324,305 B1) is pertinent as teaching method and apparatus for segmenting a composite image into mixed raster content planes.

Art Unit: 2621

Chiu et al. (US 6,366,705 B1) is pertinent as teaching perceptual preprocessing techniques to reduce complexity of video coders.

Nafarieh (US 6,252,994 B1) is pertinent as teaching adaptive quantization compatible with the JPEG baseline sequential mode.

De Queiroz (US 6,563,955 B2) is pertinent as teaching method and apparatus for analyzing image data to use multiple transforms for enhanced image data transmission.

### **Contact Information**

- Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amir Alavi whose telephone number is (703) 306-5913.
- The Examiner can normally be reached on Monday through Thursday from 8:00 a.m. to 6:30 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Leo Boudreau, can be reached at (703) 305-4706.

Any response to this action should be mailed to:

Assistant Commissioner for Patents



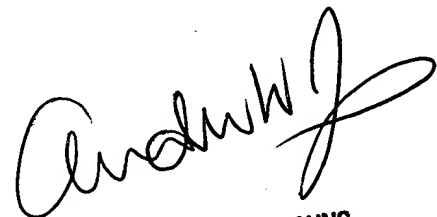
Art Unit: 2621

Washington, D.C. 20231

**Or faxed to:**

(703) 872-9306, ("draft" or "informal" communications should be clearly  
labeled to expedite delivery to Examiner)

**Hand delivered responses** should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington, VA., Sixth Floor (Receptionist). Any inquiry of a general nature or  
relating to the status of this application should be directed to the T.C. Customer Service  
Office whose telephone number is (703) 306-0377.



ANDREW W. JOHNS  
PRIMARY EXAMINER

AA  
Group Art Unit 2621  
30 April 2004